Extron® Electronics
INTERFACING, SWITCHING AND CONTROL

User's Manual

PVT CV D, PVT RGB D, PVT RGB D Plus
PVT CV AAP, and PVT RGB AAP

PoleVault® Twisted Pair Input Wallplates (Decora® and AAP Models)

68-1259-01
Rev. C
09 09

Precautions

Safety Instructions • English

This symbol is intended to alert the user of important operating and maintenance (servicing) instructions in the literature provided with the equipment.

This symbol is intended to alert the user of the presence of uninsulated dangerous voltage within the product's enclosure that may present a risk of electric shock.

Caution

Read Instructions • Read and understand all safety and operating instructions before using the equipment.

Retain Instructions • The safety instructions should be kept for future reference.

Follow Warnings • Follow all warnings and instructions marked on the equipment or in the user information.

Avoid Attachments • Do not use tools or attachments that are not recommended by the equipment manufacturer because they may be hazardous.

Consignes de Sécurité • Français

Ce symbole sert à avertir l'utilisateur que la documentation fournie avec le matériel contient des instructions importantes concernant l'exploitation et la maintenance (réparation).

Ce symbole sert à avertir l'utilisateur de la présence dans le boîtier de l'appareil de tensions dangereuses non isolées posant des risques d'électrocution.

Attention

Lire les instructions• Prendre connaissance de toutes les consignes de sécurité et d'exploitation avant d'utiliser le matériel.

Conserver les instructions• Ranger les consignes de sécurité afin de pouvoir les consulter à l'avenir.

Respecter les avertissements • Observer tous les avertissements et consignes marqués sur le matériel ou présentés dans la documentation utilisateur.

Eviter les pièces de fixation • Ne pas utiliser de pièces de fixation ni d'outils non recommandés par le fabricant du matériel car cela risquerait de poser certains dangers.

Sicherheitsanleitungen • Deutsch

Dieses Symbol soll dem Benutzer in der im Lieferumfang enthaltenen Dokumentation besonders wichtige Hinweise zur Bedienung und Wartung (Instandhaltung) geben.

Dieses Symbol soll den Benutzer darauf aufmerksam machen, daß im Inneren des Gehäuses dieses Produktes gefährliche Spannungen, die nicht isoliert sind und die einen elektrischen Schock verursachen können, herrschen.

Achtung

Lesen der Anleitungen • Bevor Sie das Gerät zum ersten Mal verwenden, sollten Sie alle Sicherheits-und Bedienungsanleitungen genau durchlesen und verstehen.

Aufbewahren der Anleitungen • Die Hinweise zur elektrischen Sicherheit des Produktes sollten Sie aufbewahren, damit Sie im Bedarfsfall darauf zurückgreifen können.

Befolgen der Warnhinweise • Befolgen Sie alle Warnhinweise und Anleitungen auf dem Gerät oder in der Benutzerdokumentation.

Keine Zusatzgeräte • Verwenden Sie keine Werkzeuge oder Zusatzgeräte, die nicht ausdrücklich vom Hersteller empfohlen wurden, da diese eine Gefahrenquelle darstellen können.

Instrucciones de seguridad • Español

Este símbolo se utiliza para advertir al usuario sobre instrucciones importantes de operación y mantenimiento (o cambio de partes) que se desean destacar en el contenido de la documentación suministrada con los equipos.

Este símbolo se utiliza para advertir al usuario sobre la presencia de elementos con voltaje peligroso sin protección aislante, que puedan encontrarse dentro de la caja o alojamiento del producto, y que puedan representar riesgo de electrocución.

Precaucion

Leer las instrucciones • Leer y analizar todas las instrucciones de operación y seguridad, antes de usar el equipo.

Conservar las instrucciones • Conservar las instrucciones de seguridad para futura consulta.

Obedecer las advertencias • Todas las advertencias e instrucciones marcadas en el equipo o en la documentación del usuario, deben ser obedecidas.

Evitar el uso de accesorios • No usar herramientas o accesorios que no sean especificamente recomendados por el fabricante, ya que podrian implicar riesgos.

安全须知 • 中文

这个符号提示用户该设备用户手册中有重要的操作和维护说明。

这个符号警告用户该设备机壳内有暴露的危险电压，有触电危险。

注意

阅读说明书 • 用户使用该设备前必须阅读并理解所有安全和使用说明。

保存说明书 • 用户应保存安全说明书以备将来使用。

遵守警告 • 用户应遵守产品和用户指南上的所有安全和操作说明。

避免追加 • 不要使用该产品厂商没有推荐的工具或追加设备，以避免危险。

Warning

Power sources • This equipment should be operated only from the power source indicated on the product. This equipment is intended to be used with a main power system with a grounded (neutral) conductor. The third (grounding) pin is a safety feature, do not attempt to bypass or disable it.

Power disconnection • To remove power from the equipment safely, remove all power cords from the rear of the equipment, or the desktop power module (if detachable), or from the power source receptacle (wall plug).

Power cord protection • Power cords should be routed so that they are not likely to be stepped on or pinched by items placed upon or against them.

Servicing • Refer all servicing to qualified service personnel. There are no user-serviceable parts inside. To prevent the risk of shock, do not attempt to service this equipment yourself because opening or removing covers may expose you to dangerous voltage or other hazards.

Slots and openings • If the equipment has slots or holes in the enclosure, these are provided to prevent overheating of sensitive components inside. These openings must never be blocked by other objects.

Lithium battery • There is a danger of explosion if battery is incorrectly replaced. Replace it only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

Avertissement

Alimentations• Ne faire fonctionner ce matériel qu'avec la source d'alimentation indiquée sur l'appareil. Ce matériel doit être utilisé avec une alimentation principale comportant un fil de terre (neutre). Le troisième contact (de mise à la terre) constitue un dispositif de sécurité : n'essayez pas de la contourner ni de la désactiver.

Déconnexion de l'alimentation• Pour mettre le matériel hors tension sans danger, déconnectez tous les cordons d'alimentation de l'arrière de l'appareil ou du module d'alimentation de bureau (s'il est amovible) ou encore de la prise secteur.

Protection du cordon d'alimentation • Acheminer les cordons d'alimentation de manière à ce que personne ne risque de marcher dessus et à ce qu'ils ne soient pas écrasés ou pincés par des objets.

Réparation-maintenance • Faire exécuter toutes les interventions de réparation-maintenance par un technicien qualifié. Aucun des éléments internes ne peut être réparé par l'utilisateur. Afin d'éviter tout danger d'électrocution, l'utilisateur ne doit pas essayer de procéder lui-même à ces opérations car l'ouverture ou le retrait des couvercles risquent de l'exposer à de hautes tensions et autres dangers.

Fentes et orifices • Si le boîtier de l'appareil comporte des fentes ou des orifices, ceux-ci servent à empêcher les composants internes sensibles de surchauffer. Ces ouvertures ne doivent jamais être bloquées par des objets.

Lithium Batterie • Il a danger d'explosion s'll y a remplacment incorrect de la batterie. Remplacer uniquement avec une batterie du meme type ou d'un ype equivalent recommande par le constructeur. Mettre au reut les batteries usagees conformement aux instructions du fabricant.

Vorsicht

Stromquellen • Dieses Gerät sollte nur über die auf dem Produkt angegebene Stromquelle betrieben werden. Dieses Gerät wurde für eine Verwendung mit einer Hauptstromleitung mit einem geerdeten (neutralen) Leiter konzipiert. Der dritte Kontakt ist für einen Erdanschluß, und stellt eine Sicherheitsfunktion dar. Diese sollte nicht umgangen oder außer Betrieb gesetzt werden.

Stromunterbrechung • Um das Gerät auf sichere Weise vom Netz zu trennen, sollten Sie alle Netzkabel aus der Rückseite des Gerätes, aus der externen Stomversorgung (falls dies möglich ist) oder aus der Wandsteckdose ziehen.

Schutz des Netzkabels • Netzkabel sollten stets so verlegt werden, daß sie nicht im Weg liegen und niemand darauf treten kann oder Objekte darauf- oder unmittelbar dagegengestellt werden können.

Wartung • Alle Wartungsmaßnahmen sollten nur von qualifiziertem Servicepersonal durchgeführt werden. Die internen Komponenten des Gerätes sind wartungsfrei. Zur Vermeidung eines elektrischen Schocks versuchen Sie in keinem Fall, dieses Gerät selbst öffnen, da beim Entfernen der Abdeckungen die Gefahr eines elektrischen Schlags und/oder andere Gefahren bestehen.

Schlitze und Öffnungen • Wenn das Gerät Schlitze oder Löcher im Gehäuse aufweist, dienen diese zur Vermeidung einer Überhitzung der empfindlichen Teile im Inneren. Diese Öffnungen dürfen niemals von anderen Objekten blockiert werden.

Litium-Batterie • Explosionsgefahr, falls die Batterie nicht richtig ersetzt wird. Ersetzen Sie verbrauchte Batterien nur durch den gleichen oder einen vergleichbaren Batterietyp, der auch vom Hersteller empfohlen wird. Entsorgen Sie verbrauchte Batterien bitte gemäß den Herstelleranweisungen.

Advertencia

Alimentación eléctrica • Este equipo debe conectarse únicamente a la fuente/tipo de alimentación eléctrica indicada en el mismo. La alimentación eléctrica de este equipo debe provenir de un sistema de distribución general con conductor neutro a tierra. La tercera pata (puesta a tierra) es una medida de seguridad, no puentearia ni eliminaria.

Desconexión de alimentación eléctrica • Para desconectar con seguridad la acometida de alimentación eléctrica al equipo, desenchufar todos los cables de alimentación en el panel trasero del equipo, o desenchufar el módulo de alimentación (si fuera independiente), o desenchufar el cable del receptáculo de la pared.

Protección del cables de alimentación • Los cables de alimentación eléctrica se deben instalar en lugares donde no sean pisados ni apretados por objetos que se puedan apoyar sobre ellos.

Reparaciones/mantenimiento • Solicitar siempre los servicios técnicos de personal calificado. En el interior no hay partes a las que el usuario deba acceder. Para evitar riesgo de electrocución, no intentar personalmente la reparación/mantenimiento de este equipo, ya que al abrir o extraer las tapas puede quedar expuesto a voltajes peligrosos u otros riesgos.

Ranuras y aberturas • Si el equipo posee ranuras o orificios en su caja/alojamiento, es para evitar el sobrecalientamiento de componentes internos sensibles. Estas aberturas nunca se deben obstruir con otros objetos.

Batería de litio • Existe riesgo de explosión si esta batería se coloca en la posición incorrecta. Cambiar esta batería únicamente con el mismo tipo (o su equivalente) recomendado por el fabricante. Desachar las baterías usadas siguiendo las instrucciones del fabricante.

警告

电源 • 该设备只能使用产品上标明的电源。 设备必须使用有地线的供电系统供电。 第三条线（地线）是安全设施，不能不用或跳过 。

拔掉电源 • 为安全地从设备拔掉电源，请拔掉所有设备后或桌面电源的电源线，或任何接到市电系统的电源线。

电源线保护 • 妥善布线， 避免被踩踏，或重物挤压。

维护 • 所有维修必须由认证的维修人员进行。 设备内部没有用户可以更换的零件。为避免出现触电危险不要自己试图打开设备盖子维修该设备。

通风孔 • 有些设备机壳上有通风槽或孔，它们是用来防止机内敏感元件过热。 不要用任何东西挡住通风孔。

锂电池 • 不正确的更换电池会有爆炸的危险。必须使用与厂家推荐的相同或相近型号的电池。按照生产厂的建议处理废弃电池。

声明

所使用电源为 A 级产品，在生活环境中，该产品可能会造成无线电干扰。在这种情况下，可能需要用户对其干扰采取切实可行的措施。

FCC Class A Notice

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. The Class A limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

NOTE *This unit was tested with shielded cables on the peripheral devices. Shielded cables must be used with the unit to ensure compliance with FCC emissions limits.*

For more information on safety guidelines, regulatory compliances, EMI/EMF compliance, accessibility, and related topics, click here.

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All trademarks mentioned in this manual are the properties of their respective owners.

Chapter One

Introduction

About the PVT Input Wallplates

Application diagram

Introduction

About the PVT Input Wallplates

The **Extron PVT Series** PoleVault® Twisted Pair Input Wallplates **(**Decora® and AAP models) described in this manual are a series of five cost effective twisted pair wallplates that work **exclusively** with PoleVault (PVS) switchers, which are twisted pair switchers with a built in power amplifier.

PVT input wallplates are part of a system for distribution of composite video and stereo audio, or high resolution video (RGB) and stereo audio, over;

- Extron Enhanced Skew-Free™ A/V UTP cable
- CAT 5, 5e, or 6 shielded twisted pair (STP) cable
- unshielded twisted pair (UTP) cable
- foil shielded twisted pair (FTP) cable

All PVT wallplates are remotely powered via the twisted pair cable when connected to the PoleVault switcher.

NOTE ***PVT series of input wallplates are compatible ONLY with PVS (PoleVault) switchers.***

NOTE *For PVS switcher installation and operation information, refer to the manual supplied with the device.*

Transmission distance

The maximum distance is determined by the frequency and resolution of the signal that is input to the wallplate. However, all PVT models are capable of transmitting signals to the PVS switcher if it is located not more than 100 feet away. **The optimum distance is between 50 and 75 feet. Minimum distance is 15 feet (5 m)**

The PVT Decora and AAP models can be mounted in UL standard wall boxes with Decora-style face plates or in AAP openings in wall or device face plates. The model types are as follows:

PVT CV D, PVT CV AAP — Transmit composite video and stereo audio.

PVT RGB D, PVT RGB D Plus, PVT RGB AAP — Transmit computer (RGB) video and stereo audio.

See the "About the PVT ..." sections in this chapter for details.

About the PVT CV D

The **PVT CV D** is a wall or furniture mountable wall plate that fits any single opening Decora style wall plate. It is capable of transmitting composite video and stereo audio to any PoleVault switcher. In addition, a 2-pole IR pass-through provides control connection for IR devices.

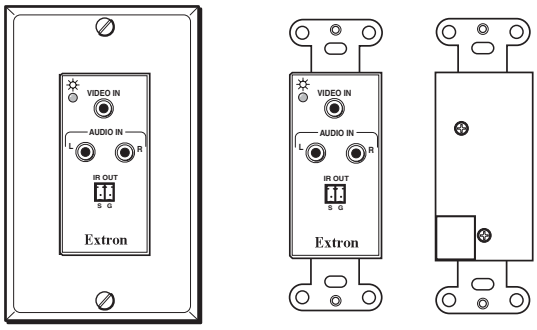


Figure 1-1 — PVT CV D face and rear panel

About the PVT CV AAP

The **PVT CV AAP** fits a standard double space AAP opening and is capable of transmitting composite video and stereo audio to the PVS switcher.

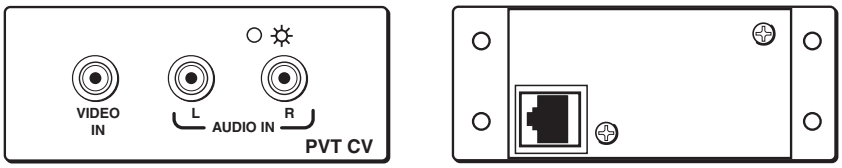


Figure 1-2 — PVT CV AAP face and rear panel

About the PVT RGB D

The **PVT RGB D** is a wall or furniture mountable model that fits any single opening Decora style wall plate. It is capable of transmitting computer (RGB) video and stereo audio to the PVS switcher.

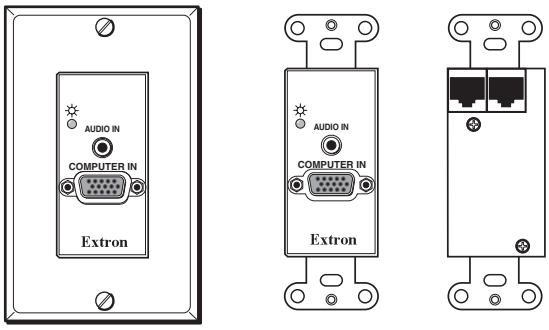


Figure 1-3 — PVT RGB D face and rear panel

NOTE *For all PVT RGB Decora and AAP models, two cable runs are required to carry the video and audio signals to the PVS switcher.*

About the PVT RGB D Plus

The **PVT RGB D Plus** is a wall or furniture mountable model that fits any single opening Decora style wall plate. It is capable of transmitting computer (RGB) video and stereo audio to the switcher with a local monitor output and audio output. In addition, a 2-pole IR pass-through provides control connection for IR devices.

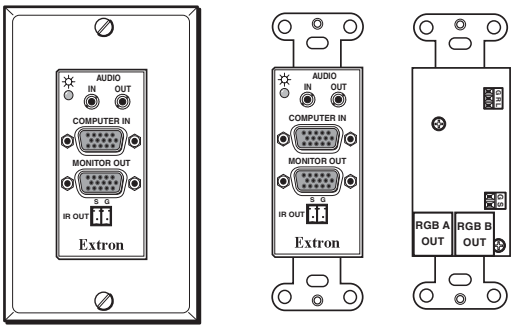


Figure 1-4 — PVT RGB D face and rear panel

About the PVT RGB AAP

The **PVT RGB AAP** fits a standard double height AAP opening in a wall plate or a device's front or secondary panel. It is capable of transmitting computer (RGB) video and stereo audio to the PVS switcher.

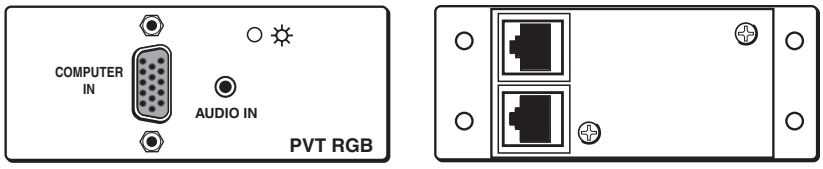


Figure 1-5 — PVT RGB AAP face and rear panel

Application Diagram

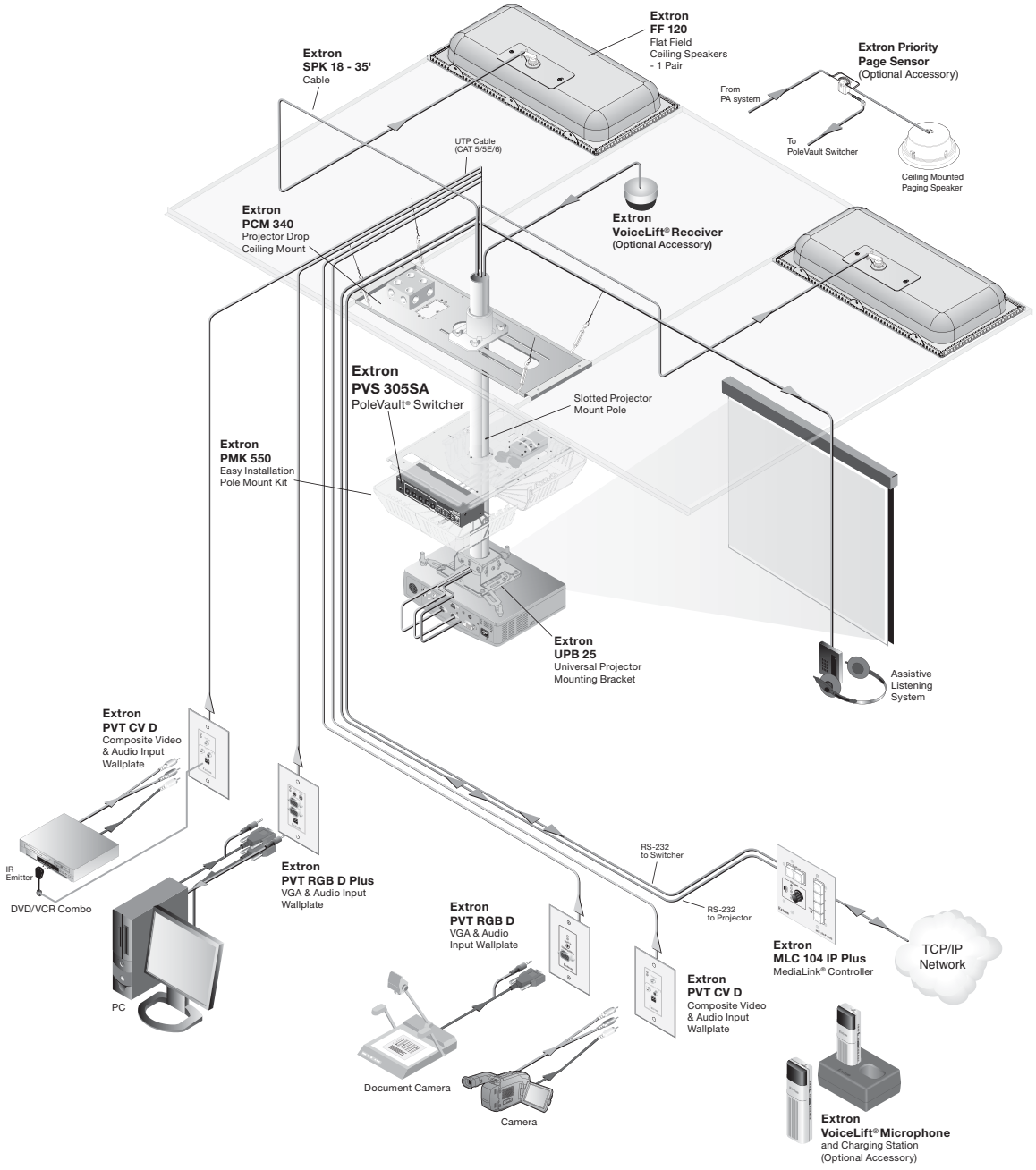


Figure 1-6 — Typical PVT Series system application using PVT Decora input wallplates with the PVS 305SA and other Extron devices

Chapter Two

Installation

UL/Safety Requirements

Installing the PVT CV and PVT RGB Decora Models

Installing the PVT CV and PVT RGB AAP Models

Connections and Settings

Installation

UL/Safety Requirements

The Underwriters Laboratories (UL) requirements listed below pertain to the safe installation and operation of these devices.

Important safety instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Installing the PVT CV and PVT RGB Decora Models

The PVT CV and PVT RGB Decora models can be installed into a wall using either the supplied mud ring or a UL approved one-gang electrical wall box with a Decora wall plate cover (supplied).

The installation must conform to national and local electrical codes and to the wallplate's size requirements.

The following Underwriters Laboratories (UL) requirements pertain to the installation of the PVT input wallplates into a wall or furniture.

1. These units are not to be connected to a centralized DC power source or used beyond their rated voltage range.
2. These units must be installed in UL listed junction boxes.
3. These units must be installed with conduit in accordance with national electrical and building codes

To install into a mud ring

1. Using the mud ring as a guide, mark the edges and cut out the material within the marked area.
2. Insert the mud ring into the opening, rotate the doglegs, and secure with the supplied screws.
3. Run the CAT 5 cables from the PoleVault switcher location, going behind the wall and to the PVT location, then thread the cables through the mud ring.

NOTE *Two cables (A and B) are needed for RGB signals.*

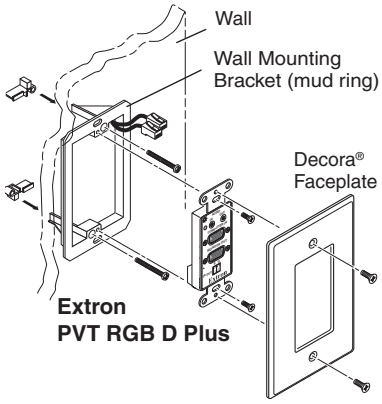


Figure 2-1 — Installing the mud ring

5. Connect the switcher cables to the rear of the PVT wall plate. See "Rear panel - features", later in this manual, for connector wiring details.
6. Connect input devices (see "Front panel features and cabling", later in this manual, for connector details), restore the power supply, and test the wall plate. Make any cabling adjustments before final installation, as the cables will be inaccessible afterwards.

To install into a new wall box

Follow steps **1 through 6** below. If a suitable wall box is already installed, follow steps **3 to 6** below.

NOTE *If installing a junction box, allow enough depth for the wallplate and cables. The box should be at least 2.0 inches (5.1 cm) deep to accommodate the connectors and cables.*

Choose a location that allows cable runs without interference. Allow enough depth for both the wall box and the cables. The box should be at least 2.5 inches (6.4 cm) deep to accommodate the connectors and cables. Install the cables into the wall, furniture, or conduits before installing the wallplate.

1. Using the wall box as a guide, mark the edges and cut out the marked area.
2. To ensure a correct fit, insert the wall box into the opening. The box or the wallplate's rear connectors should fit easily into the opening. Enlarge or smooth the edges of the opening if needed. **Do not secure the box in place at this time**.
3. Feed cables for the output devices through the opening and through the wall box punch-out holes, securing them with cable clamps to provide strain relief.
4. Connect the PoleVault switcher cables to the rear of the PVT wallplate. See "Rear panel - features" for connector wiring details.
5. Connect input devices (see "Front panel features and cabling" for connector details), restore the power supply, and test the wallplate. Make any cabling adjustments before final installation, as the cables are inaccessible afterwards.
6. Carefully insert the wall box into the opening and secure it with nails or screws, leaving the front edge flush with the outer wall or furniture surface. See figure 2-2.

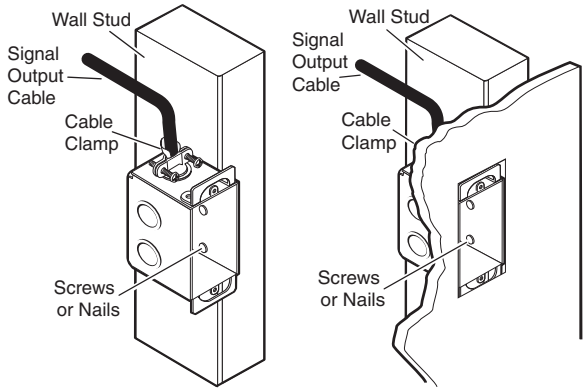


Figure 2-2 — Installing the wall box

NOTE *If attaching the wall box to wood, use four #8 or #10 screws or nails. A minimum of 0.5 inches (1.3 cm) of screw thread must penetrate the wood.*

If attaching the wall box to metal studs or furniture, use four #8 or #10 self-tapping sheet metal screws or machine bolts with matching nuts.

Final installation

After testing and making any adjustments, do the following:

1. Turn off the power supply to the PoleVault switcher and disconnect the input cables from the front of the wallplate.

NOTE *The transmitter's power is supplied by the PoleVault switcher.*

2. Mount the transmitter into the box or mud ring, and attach the supplied Decora faceplate to the transmitter, as shown in figure 2-3.

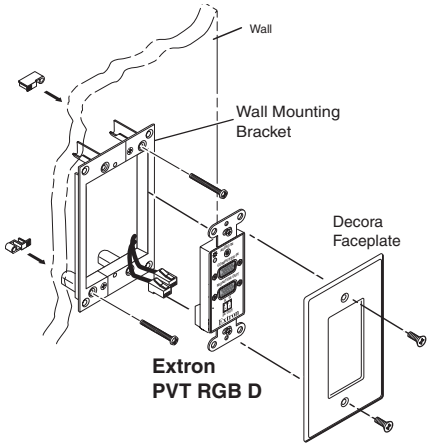


Figure 2-3 — Mounting the PVT RGB D Plus into a mud ring

4. Reconnect the input cables and turn on the power supply to the switcher and input and output devices.

Installing the PVT CV and PVT RGB AAP Models

The PVT CV AAP and PVT RGB AAP must be attached to a device faceplate or AAP wall plate and cabled before the device or wall plate is tested and installed in a wall or furniture.

1. Before attaching any cables, insert the AAP's standoffs through the holes in the device's faceplate or AAP wall plate.
2. Using the supplied #4-40 nuts and captive washers, secure the AAP to the faceplate or wall plate.

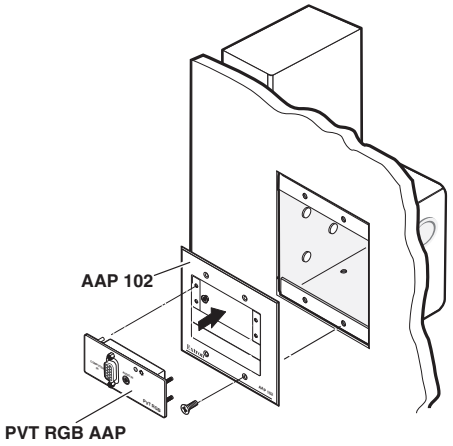


Figure 2-4 — Mounting the PVT RGB AAP

3. Repeat steps 1 and 2 to mount any other AAPs. Cover any openings in the faceplate with blank plates (provided with the AAP faceplate).
4. Be sure to include the AAP connectors as part of the installation pretest before final installation of the faceplate.
5. For more detailed installation information, refer to the installation guide shipped with the device.

NOTE *The PVT input wallplate should be cabled and tested before it is finally installed into the wall or device face plate, as the rear panel connections will be inaccessible after installation.*

6. After testing and making any adjustments, turn off the power supply to the PoleVault switcher, and carefully secure the faceplate on the wall box device.
7. Reconnect the cables and turn on the power supply to the switcher. This powers up the AAP plates.

Connections and Settings

CAUTION *Do not connect these devices to a computer data or telecommunications network.*

Front panel features and cabling

The front panel features are similar within these groups:

a) PVT CV D and PVT CV AAP, and

b) PVT RGB D, PVT RGB D Plus, and PVT RGB AAP:

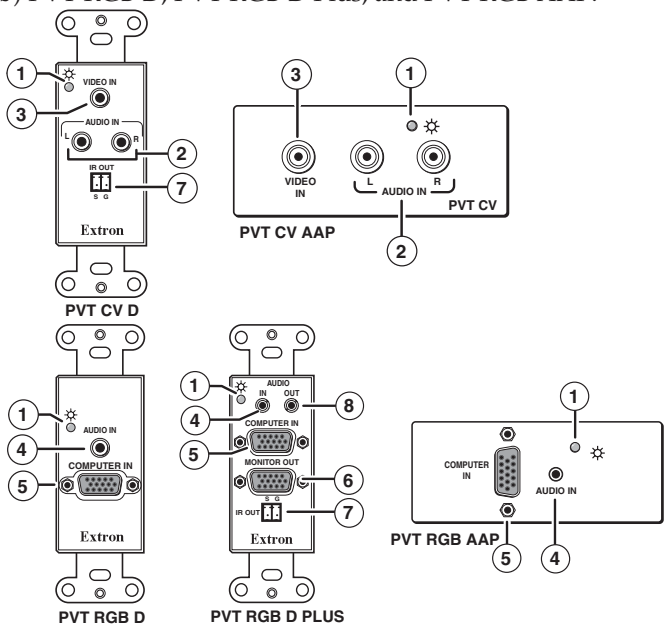


Figure 2-5 — PVT series front panel features

① **Dual color power LED (all models) —** This LED lights red when power only (no signal) is applied to the PVT, and green when power and signal are both present.

② **Audio (left and right) input (CV D and CV AAP models)** — For unbalanced left and right audio input, plug male RCA audio plugs into these two female RCA jacks (white = left, red = right).

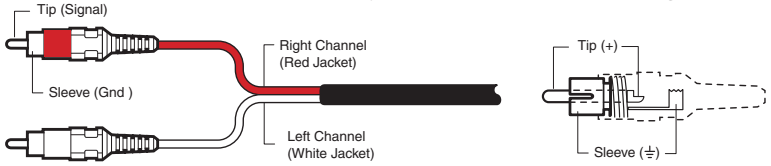


Figure 2-6 — RCA audio connectors

③ **Composite video input (CV D and CV AAP models) —** To input a composite video signal from a suitable source, insert a male RCA plug into this yellow female RCA jack.

④ **Audio input (RGB D and RGB AAP models)** — Plug a 3.5 mm stereo audio plug into this jack for unbalanced audio input. Wire the plug as shown in figure 2-7 which shows an audio connector with the tip, ring, and sleeve.

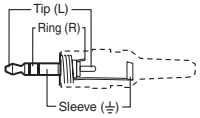
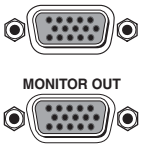


Figure 2-7 — 3.5 mm stereo audio plug



⑤ **RGB video input (RGB D and RGB AAP models) —** Connect a computer video source to this 15-pin HD connector for high resolution RGB video input.

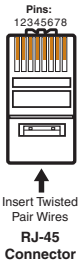
⑥ **Local monitor output (RGB D Plus model) —** Connect a monitor to this 15-pin HD connector to view the output locally.

⑦ **IR pass-through (CV D and RGB D Plus models) —** Connect to this 2-pole IR pass-through connector to provide control via IR devices**.**

⑧ **Audio pass-through (RGB D Plus model) —** Plug a a local audio device into this 3.5 mm stereo jack for audio pass-through. Wire the plug as shown in figure 2-7.

Rear panel — output cabling

The PVT cable termination method is specific for PVT input wallplates used with the PoleVault switcher. The supplied cables are terminated to TIA/EIA T 568A standard.



Pin	T568A Wire color	T568B Wire color
1	White-green	White-orange
2	Green	Orange
3	White-orange	White-green
4	Blue	Blue
5	White-blue	White-blue
6	Orange	Green
7	White-brown	White-brown
8	Brown	Brown

NOTE *If you are using Enhanced Skew-Free™ A/V cable, use the TIA/EIA T568A standard only.*

NOTE *When terminating CAT 5, CAT 5e, CAT 6, and Skew-Free A/V UTP cables with RJ-45 connectors, it must comply with the TIA/EIA T 568A or T 568B wiring standards, with the same standard used at both ends. DO NOT connect to an MTP system.*

Rear panel — features

All models have the output connectors on the rear panel.

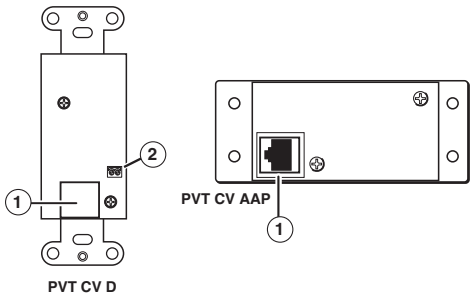


Figure 2-8 — PVT CV models rear panel features

① **Composite video output (PVT CV models) —** For composite video output, using CAT 5, CAT 5e, and CAT 6 UTP cable, connect this RJ-45 female video output port to one of the two composite video RJ-45 input ports (labelled 3B/video and 4B/video) on the rear panel of the PoleVault switcher.

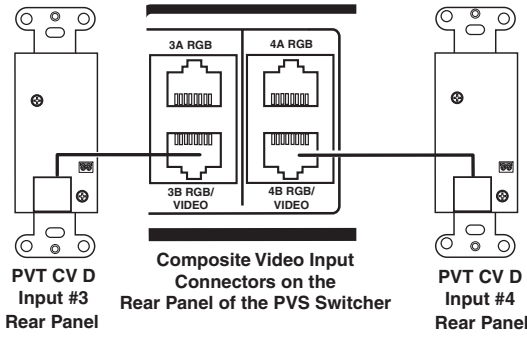
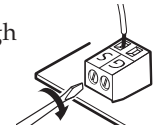

3A RGB
4A RGB
3B RGB/ VIDEO
4B RGB/ VIDEO
PVT CV D Input #3 Rear Panel
Composite Video Input Connectors on the Rear Panel of the PVS Switcher
PVT CV D Input #4 Rear Panel

Figure 2-9 — Connecting the PVT CV D to the PoleVault switcher



② **IR connector (2-pole) (PVT CV D, PVT RGB D Plus models) —** For IR pass-through control, wire this connector from the IR output of the controller, with ground to "G" and signal to "S".

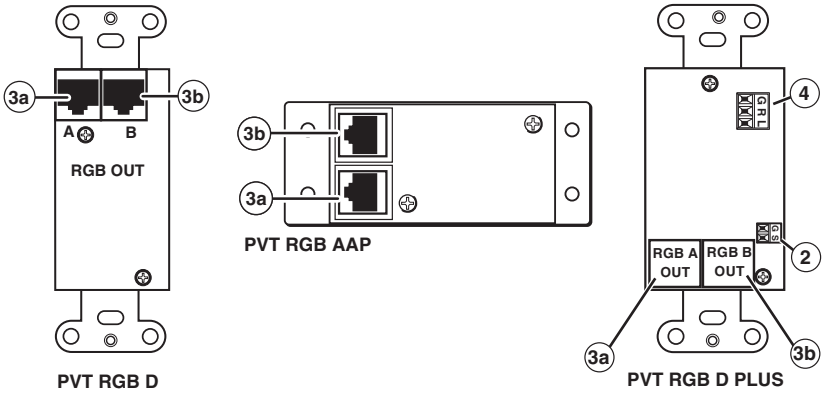


Figure 2-10 — PVT RGB models rear panel features

③a **RGB A output (PVT RGB models) —** Using CAT 5 UTP cable, connect this RJ-45 female output port labelled "RGB A out" to one of the input ports labelled A (for example 2A) on the rear panel of the PoleVault switcher.

③b **RGB B output (PVT RGB models) —** Using CAT 5 UTP cable, connect this RJ-45 female output port labelled "RGB B out" to one of the input ports labelled B (for example 2B) on the rear panel of the PoleVault switcher.

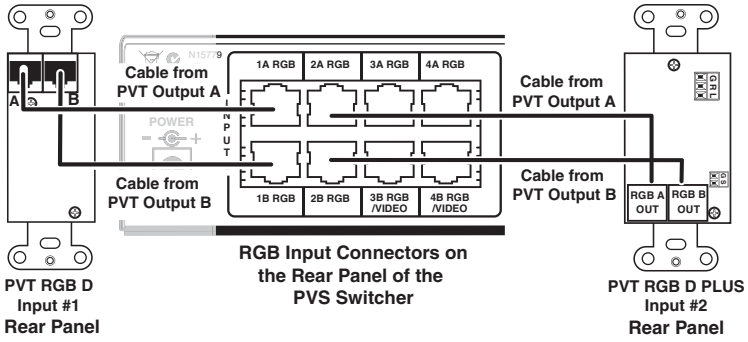


Figure 2-11 — Connecting the PVT RGB D or PVT RGB D Plus to the PoleVault switcher

NOTE *Some PVS switchers can accept signals from PVT RGB input wallplates on inputs 3 and 4 and must be configured for this using software. Refer to the user manual specific to your switcher model.*

④ **Audio pass-through connector (PVT RGB D Plus models) —** Connect an audio source to this 3-pole connector for audio pass through output. Connect the ground to "G", right speaker to "R", and left speaker to "L".

Appendix A

Reference Material

Specifications

Part Numbers

Optional Accessories

Template Dimensions

Reference Material

Specifications

NOTE *These transmitters are compatible only with an Extron PoleVault® Switcher (PVS). They are not compatible with other models of twisted pair receivers.*

Video — RGB (RGB models)

Gain ..... Unity

Video input and loop-through — RGB (RGB models)

Number/signal type

PVT RGB D Plus ..... 1 VGA-UXGA RGBHV, RGBS
1 buffered RGBHV, RGBS local monitor loop-through

All other models ..... 1 VGA-UXGA RGBHV, RGBS

Connectors

PVT RGB D Plus ..... 2 female 15-pin HD (1 for input, 1 for loop-through)

All other models ..... 1 female 15-pin HD

Nominal level ..... 0.7 Vp-p for RGB

Minimum/maximum levels ..... Analog: 0.3 V to 1.5 Vp-p with no offset

Impedance ..... 75 ohms

Horizontal frequency ..... 15 kHz to 130 kHz

Vertical frequency ..... 30 Hz to 150 Hz

Return loss ..... <-30 dB @ 5 MHz

DC offset (max. allowable) ..... 250 mV

Video output — RGB (RGB models)

Number/signal type ..... 2 analog proprietary signals

Connectors ..... 2 female RJ-45

Sync — RGB (RGB models)

Input type ..... RGBHV, RGBS

Input level ..... 3.5 V to 5.5 Vp-p, unterminated

Input impedance ..... 510 ohms

Max. input voltage ..... 5.5 Vp-p

Video — composite video (CV models)

Gain ..... Unity

Differential phase error ..... <1.0° at 3.58 MHz and 4.43 MHz

Differential gain error ..... <1.0% at 3.58 MHz and 4.43 MHz

Video input — composite video (CV models)

Number/signal type ..... 1 composite video

Connectors ..... 1 female RCA

Nominal level ..... 1 Vp-p for composite video

Minimum/maximum levels ..... Analog: 0.3 V to 1.5 Vp-p with no offset

Impedance ..... 75 ohms

Return loss ..... <-30 dB @ 10 MHz

DC offset (max. allowable) ..... 100 mV

Video output — composite video (CV models)

Number/signal type ..... 1 analog proprietary signal

Connectors ..... 1 female RJ-45

Sync — composite video (CV models)

Standards..... NTSC 3.58, NTSC 4.43, PAL, SECAM

Audio input

Number/signal type
- PVT RGB D Plus..... 2 stereo, unbalanced: 1 input, 1 pass-through
- All other models..... 1 stereo, unbalanced

Connectors
- PVT RGB models..... (1) 3.5 mm mini audio jack (tip, ring, sleeve)
- PVT CV models..... 1 pair female RCA

Impedance..... >10k ohms unbalanced, AC coupled
Nominal level ..... -10 dBV (316 mVrms)
Maximum level..... +11 dBu, (unbalanced) at 1% THD+N

NOTE *0 dBu = 0.775 Vrms, 0 dBV = 1 Vrms, 0 dBV ≈ 2 dBu*

Audio output to a PoleVault switcher (all models)

Number/signal type..... 1 analog proprietary signal
Connectors ..... 1 female RJ-45

Audio output — pass-through, PVT RGB D Plus only

Number/signal type..... 1 stereo, unbalanced
Connector ..... (1) 3.5 mm captive screw connector, 3 pole

Control — IR port — PVT CV D and PVT RGB D Plus only

Number and connectors..... 1 female 3.5 mm captive screw connector, 2 pole, for IR pass-through

General

Power ..... Supplied by a PoleVault twisted pair receiver/switcher
Power input requirements
- PVT RGB AAP, PVT RGB D, PVT RGB D Plus ..... 5.5 VDC, 150 mA
- PVT CV AAP, PVT CV D.. 5.5 VDC, 110 mA

Temperature/humidity..... Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing
Operating: +32 to +122 °F (0 to +50 °C) / 10% to 90%, noncondensing
Cooling ..... Convection, no vents
Mounting
- Rack mount
  - PVT CV AAP, PVT RGB AAP ..... Yes, with optional faceplate
- Furniture/Wall mount
  - PVT CV D, PVT RGB D, PVT RGB D Plus ..... Yes, with the included Decora® wall plate
  - PVT CV AAP, PVT RGB AAP ..... Yes, with optional faceplates or AAP wall plates

Enclosure type
- PVT CV D, PVT RGB D, PVT RGB D Plus ..... Plastic
- All other models..... Metal

Enclosure dimensions

PVT RGB D

Faceplate..... 2.6″ H x 1.3″ W x 0.3″ D
(6.6 cm H x 3.3 cm W x 0.7 cm D)
(Fits the opening in a 1 gang Decora plate.)

Device ..... 2.6″ H x 1.6″ W x 0.7″ D
(6.6 cm H x 4.1 cm W x 1.8 cm D)
(Depth excludes connectors, height excludes mounting tabs.)

PVT RGB D Plus, PVT CV D

Faceplate..... 2.8" H x 1.6" W x 0.2" D
(7.1 cm H x 4.1 cm W x 0.5 cm D)

Device ..... 2.7" H x 1.7" W x 1.6" D
(6.9 cm H x 4.3 cm W x 4.1 cm D)
(Depth excludes connectors, height excludes mounting tabs.)

PVT CV AAP, PVT RGB AAP

Faceplate..... 1.4" H x 3.5" W x 0.1" D
(3.5 cm H x 8.9 cm W x 0.3 cm D)
(double space AAP plate)

Device ..... 1.6" H x 2.6" W x 1.2" D
(4.1 cm H x 6.6 cm W x 1.8 cm D)
(Depth excludes connectors, height excludes mounting tabs.)

Product weight ..... 0.2 lbs (0.1 kg)

Shipping weight ..... 2 lbs (1 kg)

Vibration ..... ISTA 1A in carton (International Safe Transit Association)

Regulatory compliance

Safety..... CE, c-UL, UL

EMI/EMC ..... CE, C-tick, FCC Class A, ICES, VCCI

MTBF..... 30,000 hours

Warranty..... 3 years parts and labor

NOTE *All nominal levels are at ±10%.*

NOTE *Specifications are subject to change without notice.*

Part Numbers

Item	Part number
PVT CV D, white	68-819-33
PVT RGB D, white	60-820-13
PVT RGB D Plus, white	60-820-33
PVT CV AAP, black, white	70-579-12, 13
PVT RGB AAP, black, white	70-580-12, 13

Included Parts

Unless indicated, these items are included with each PVT Series transmitter.

Included parts
(1) Single gang Decora® wall plate *
(2) 6-32, 7/8L, mount screws *
(1) Mud ring *
Installation Guide
(1) 2-pole captive screw connector **

NOTE * *Items with PVT RGB D, PVT RGB D Plus, and PVT CV D models only*

** *Items with PVT RGB D Plus and PVT CV D models only*

Optional Accessories

Cables

Item	Part number
CAT 5 cable, 35', plenum	26-637-35
CAT 5 cable, 50', plenum	26-637-50
CAT 5 cable, 75', plenum	26-637-75
CAT 5 cable, 100', plenum	26-637-100

AAP accessories

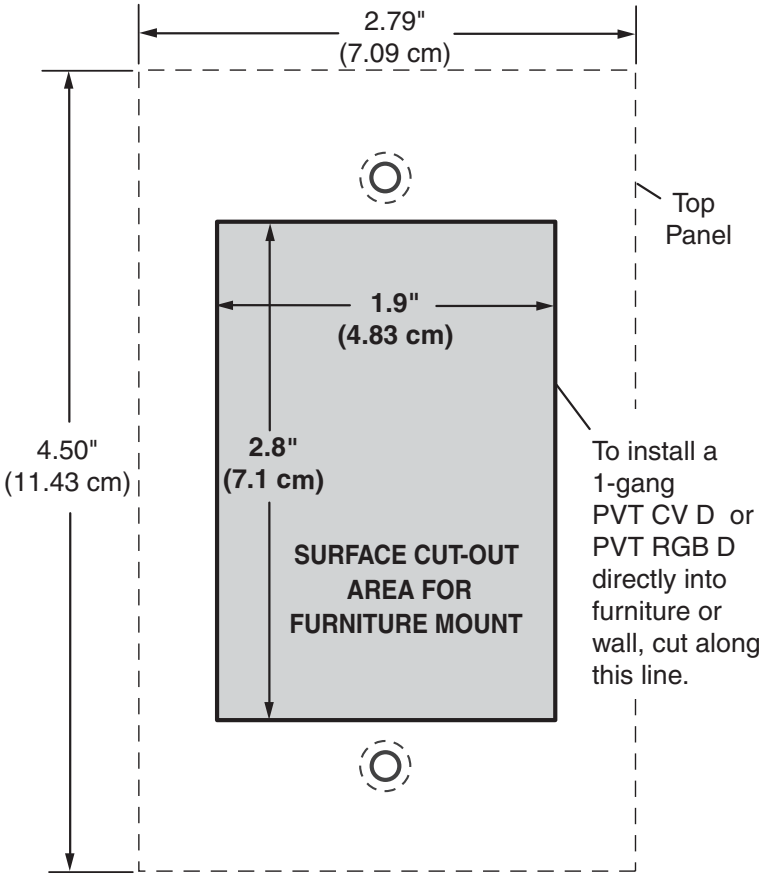
NOTE *All the accessories in this table are for AAP models only.*

Item	Part number
AAP 100 panel, black, white	60-593-02, 03
AAP 102 panel, black, white	60-300-02, 03
AAP 104 panel, black, white	60-301-02, 03
AAP 106 panel, black, white	60-531-02, 03
AAP 201 panel, ½ rack width, 1U, black, white	60-302-02, 03
AAP 202 panel, ½ rack width, 2U, black, white	60-303-02, 03
AAP 301 panel, 1 rack width, 1U, black, white	60-632-02, 03
AAP 302 panel, 1 rack width, 2U, black, white	60-633-02, 03

Template Dimensions

If you need to create a template, use the **dimensions** given below.

NOTE ***The drawing is not full size or to scale.***
Do not scale up or print to use as a template.



Extron Warranty

Extron Electronics warrants this product against defects in materials and workmanship for a period of three years from the date of purchase. In the event of malfunction during the warranty period attributable directly to faulty workmanship and/or materials, Extron Electronics will, at its option, repair or replace said products or components, to whatever extent it shall deem necessary to restore said product to proper operating condition, provided that it is returned within the warranty period, with proof of purchase and description of malfunction to:

USA, Canada, South America, and Central America:
Extron Electronics
1001 East Ball Road
Anaheim, CA 92805
U.S.A.

Japan:
Extron Electronics, Japan
Kyodo Building, 16 Ichibancho
Chiyoda-ku, Tokyo 102-0082
Japan

Europe, Africa, and the Middle East:
Extron Europe
Hanzeboulevard 10
3825 PH Amersfoort
The Netherlands

China:
Extron China
686 Ronghua Road
Songjiang District
Shanghai 201611
China

Asia:
Extron Asia
135 Joo Seng Road, #04-01
PM Industrial Bldg.
Singapore 368363
Singapore

Middle East:
Extron Middle East
Dubai Airport Free Zone
F12, PO Box 293666
United Arab Emirates, Dubai

This Limited Warranty does not apply if the fault has been caused by misuse, improper handling care, electrical or mechanical abuse, abnormal operating conditions or non-Extron authorized modification to the product.

If it has been determined that the product is defective, please call Extron and ask for an Applications Engineer at (714) 491-1500 (USA), 31.33.453.4040 (Europe), 65.383.4400 (Asia), or 81.3.3511.7655 (Japan) to receive an RA# (Return Authorization number). This will begin the repair process as quickly as possible.

Units must be returned insured, with shipping charges prepaid. If not insured, you assume the risk of loss or damage during shipment. Returned units must include the serial number and a description of the problem, as well as the name of the person to contact in case there are any questions.

Extron Electronics makes no further warranties either expressed or implied with respect to the product and its quality, performance, merchantability, or fitness for any particular use. In no event will Extron Electronics be liable for direct, indirect, or consequential damages resulting from any defect in this product even if Extron Electronics has been advised of such damage.

Please note that laws vary from state to state and country to country, and that some provisions of this warranty may not apply to you.

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+65.6383.4664 FAX

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